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ABSTRACT

This student guide is intended to assist persons employed as supervisors in accounting for money. Discussed in the first four sections are the following topics: the need for accounts; financial accounting (basics of financial accounting, creditors and debtors, assets and liabilities, and balance sheets); cost and management accounting (company, labor, material, and stock costs); and management accounting and spending plans. Each of these sections contains an introduction, sections of instructional text that are interspersed with reinforcing learning activities, and a section summary. The fifth part of the guide includes a series of performance checks (an end check, a tutor check, and a work-based project). Concluding the guide is a unit review that reviews the objectives addressed in the guide, describes related extension courses, and lists recommended reference materials. (MN)

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An Open Tech Project

SUPERVISING

ECONOMIC AND FINANCIAL ASPECTS

70: Accounting for Money

ED268253

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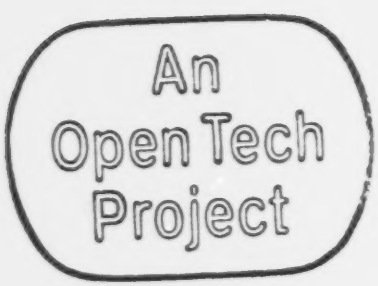
70: ACCOUNTING FOR MONEY

Dennis Bainbridge



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Dennis Bainbridge
Accounting For Money (Number 70 in the CHOICE SERIES of learning units)

Series Editor: Harry V Pardue
Northern Regional Management Centre.

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WORKING GUIDE TO THIS UNIT IN YOUR DEVELOPMENT PROGRAMME

This Unit is now your personal property - it's not for handing back to your training officer or to a tutor. It is your working book.

The Contents will increase in value to you each time you write on one of its pages. This is a working text for your personal notes - without notes its value is limited.

Qualifications forget about certificates and diplomas - you don't need them for this programme. What you do need is the wish:-

* to do your job better
* for personal development

Your study time is really up to you - we guess you will need about 8 hours in total. But it's your time - spend as long as you like.

How am I doing? you can judge for yourself by checking out how well you cope with the tasks we call Activities and Self Checks which occur throughout the unit. You can also get the Tutor Check and/or the Work Based Project to your tutor for an unbiased view of your progress.

Work Pace it's really up to you and depends on your interest. However, if you do well on the Activities and Self Checks, you could afford to speed up a little. Of course, if you don't do as well as you expect then you could slow down a little or flick back into the unit for a quick review of the more difficult ideas.

When in doubt - ask or seek help from:

* your family and friends
* colleagues at work
* your company training staff
* other open learners
* your tutor, by phone, by a visit to your support centre or by dropping your tutor a line through the post.

Don't worry if what you learn doesn't seem to be of use to you now, remember that times change - it may be useful one day. Anyway, just knowing more improves personal confidence.

So now make a start:-

70: ACCOUNTING FOR MONEY by Dennis Bainbridge

ABOUT THIS UNIT

As a supervisor you will be directly involved in the production of goods or services.

Your performance in the workplace, and that of your workteam, will be measured in pounds (£s) - money terms, using accounting procedures.

Now while you have an expert knowledge of production methods you may not always be sure why your efforts are measured in money terms. This unit will help you to understand why. We'll explore the way money is used to measure work efforts and how you help to ensure the 'measuring' is done correctly.

IN THIS UNIT WE WILL:

* explain why money is used to measure the efforts of your workteam
* discuss why accounting procedures are necessary
* look at different accounting procedures
* see the kinds of accounting information prepared in the supervisor's work place and explore how it is used

AUDIO TAPE Side 1

Before you continue through the unit, you should listen to side 1 of the audio tape that accompanies the unit. You will find it useful if you refer to the unit objectives shown below whilst you listen to the tape. You may wish to make the objectives clearer to yourself by making a note or two on the page as you listen.

UNIT OBJECTIVES

When you have worked through this unit you will be BETTER ABLE to:

* understand how money can measure performance at work
* appreciate the need for accounting procedures
* describe three forms of accounting in business
* record accounting information at your workplace

PART A THE NEED FOR ACCOUNTS

1 Introduction

Money is very important to all of us, both as private individuals and as members of business organisations. It isn't that it is valuable in itself, but its importance is in what it can buy and do for us.

As private individuals how we account for our money, once we've paid our tax and national insurance, is up to us: we may keep careful records or we may decide to spend it while we've got it and, when it's gone, manage without.

EXTENSION 1
Page 61

Business organisations, however, must keep detailed and accurate accounts if they are to stay in business at all and if they hope to plan for the future in any meaningful way.

Let's begin by looking at what money does for us.

2 How money is used

Money enables people who, say make goods, to obtain food and clothing. They sell their goods for money and then use the money to buy food and clothes. So money enables them to exchange one thing for another. So,

MONEY ACTS AS A MEDIUM OF EXCHANGE

Money also enables people to save or store money for "rainy days", holidays, retirement etc. So:

MONEY ACTS AS A STORE OF WEALTH

Money allows people to borrow and repay fixed amounts over a certain period. In other words, it allows them to buy something now and put off or defer paying for it over a period. So,

MONEY ACTS AS A MEANS OF DEFERRED PAYMENT

Money allows people to look at totally different things, like a packet of cigarettes or a pound of apples or a pair of shoes, and make some sensible comparisons between them. For instance there would be no point in measuring them with a ruler or weighing them. But you can compare them by giving each of them a value in money terms. So

MONEY ACTS AS A MEASURE OF VALUES

This last use of money, in being able to put a common measure of value onto widely different objects, is particularly useful. It means that all the things you use at your workplace can be "costed" or given a value in "money terms".

So all the activities at your workplace can be costed eg

* your workteam's efforts
* the use of machinery and equipment
* the use of the building where you work
* the use of the materials you work with
* we can even include the use of time

So we can work out how much it costs to produce something at your workplace by using money as a measure of values.

This is why your performance in the workplace and that of your workteam is measured in money using accounting procedures.

SELF CHECK 1
Time guide
5 mins

Respond by completing the following statements with suitable words.

a) John has a car and a house. He thinks that together they are worth £25,000.

In these circumstances John is using money as a _____ of values.

b) Jack has won £800 on the football pools and decides to use the money for a holiday next year. He deposits the money with a building society.

In these circumstances Jack is using the money as a _____ of wealth.

c) Janet borrows £500 from her father and agrees to repay him at £50 per month over ten months.

In these circumstances the money is being used as a means of _____ payment.

d) Diana sells her large house for £40,000 and buys a smaller house for £30,000 and a car for £10,000.

In these circumstances Diana is using money as a medium of _____.

The answers to this self check are here in the following words, so you'll need to check out your answers carefully. a) A car and a house are so different from each other that John can only group them if he gives them a money value. So in this case he is using money as a measure of values. b) Jack is saving money to use it later so in this case he is using money as a store of wealth. c) Janet's borrowing enables her to have the car now and pay for it over a period so she is using money as a means of deferred payment. d) Finally, Diana is able to exchange one item, her house, for other items - a car and a smaller house, so in this case she is using money as a medium of exchange.

3 The use of Accounts

REFERENCE 1
Page 62

Accounts are the records which an individual or business organisation keeps to monitor their financial position. Frank Wood describes accounting as "The language of business" because it is used to describe the financial dealings of every kind of business organisation. We've just examined the way in which money serves a variety of purposes and we can look at accounts and accounting systems in the same way.

There are a number of reasons why companies keep accounting records, here are five good reasons:

* A company must know what it owes
* A company must know what it is owed
* A company must know what it owns
* A company must be able to examine its activities to see if improvements can be made
* A company must be able to plan for the future

The first three reasons can be grouped. To see why, let's look at two small case incidents.

ACTIVITY 1
Time guide
3 mins

Suppose you earned £200 pw and are paid at the end of the week. In reality you are owed £40 at the end of Monday, another £40 at the end of Tuesday and so on until Friday.

It's the same with the money you owe to others like the milkman and the newsagent. You'd normally get milk and newspapers delivered and pay what you owe at the end of the week. But our bills aren't as simple as this - let's say that you owed the following amounts:

Monday £30; Tuesday £35; Wednesday £45; Thursday £40; Friday £10; Saturday £20; Sunday £10.

Draw up your weekly account in this table:

	WHAT YOU ARE OWED	WHAT YOU OWE
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		
TOTALS		

Your completed accounts will look like this:

	WHAT YOU ARE OWED	WHAT YOU OWE
Monday	40	50
Tuesday	40	25
Wednesday	40	45
Thursday	40	30
Friday	40	10
Saturday	nil	20
Sunday	nil	10
TOTALS	200	190

Now we can see clearly from this the effects of what we owe and what we are owed quite clearly.

Company accounts are much more complicated than this - I'll bet yours are too! - but their accounts will certainly contain this basic information on what it owes and what it is owed.

So by keeping an accounting record a company will know:

* how much it owes, and

* how much it is owed

Let's now see why knowing what is owned is also important:

ACTIVITY 2
Time guide
3 mins

Suppose a company:

* is owed £3,000 by people who have bought goods from them on credit

* owes £3,000 (NEXT WEEK) to people who have sold goods to them on credit

What does the company need to know before it can promise to pay off its £3000 debt next week?

*

Well, it will need to know when the £3000 it is owed will be paid. It should be able to look this up in their accounting records.

We can easily appreciate that even a small company could have a number of debts and be owed money for many sales. So the accounts will be very complicated and must be accurate and easy to understand for it to trade properly.

ACTIVITY 3
Time guide
1 min

Now what would happen if the money it is owed wasn't due until the week after?

What could the company do?

*

Well there are a number of possibilities:-

* it could default by not paying what it owes! not recommended!

* it could borrow the money - it would then still owe £3,000!

* it could sell something it owns - it could sell £3000's worth of goods, or sell off a piece of land or equipment

So:

* how much is <u>owned by them</u>

* how much is <u>owed by them</u>

* how much is <u>owed to them</u>

are closely connected in the accountancy records.

Now let's look at our fourth reason why a company keeps accounting records. To do this we'll examine this small case incident.

ACTIVITY 4
Time guide
2 mins

Suppose your take-home pay this month is £500, you have to make the following payments, but this time you don't have an income tax rebate coming:

* housekeeping	£200
* mortgage	£150
* insurance	£ 50
* car loan	£125

It's clear that you don't have enough money to meet all your monthly payments so you are going to be short by £25.

Now from our last activity we knew you could try to borrow the £25, or you could default on one of your payments - but this would be foolish! Next month you'd have a worse problem - you would be £25 short again and also owe £25.

So note down ONE thing which you must do to "balance" your accounts:

* _____

It's clear that your income must rise or your spending must be reduced, so you'll either have to:

* sell your car - if it covers the outstanding loan

* stop the insurance - or change to cheaper cover

* cut down on housekeeping

In order to avoid long term debt your income must exceed your expenditure - the same applies to a business.

A business cannot survive unless it makes a profit. This is achieved by making sure that the total of things like:

* wages and salaries

* materials used

* purchase of machinery

* rent and rates

* gas, water, electricity bills

and all other items of spending are more than covered by income from sales

EARNINGS FROM SALES - TOTAL COSTS = SURPLUS

So the fourth reason why a business must keep accounting records is to enable it to

* examine its day-to-day activities to ensure that it makes a surplus

Now let's look at the fifth reason why accounting records are kept.

Suppose your monthly take-home pay is £500 and your monthly expenses are £450. This enables you to save £50 per month.

Next year you would like to go abroad on a holiday which will cost £850. However in the next twelve months you can only save £600.

So your plans for next year's holiday will have to be changed.

So our fifth reason why a company keeps accounting records is:

* to plan for the future

SELF CHECK 2
Time guide
2 mins

Respond to the following statements by writing a suitable word or words in the space provided.

A company keeps accounting records because it needs to:

a) know how much it _____ to other people

b) know how much it is _____ from other people

c) know the value of what it _____

d) know what changes need to be made if the money coming into the business is less than the amount _____ to other people

e) be able to _____ for the future.

The answers to this self check are here in the following words, so you'll need to check out your answers carefully. Basically, companies keep accounts to show what they own, owe and are owed. So our responses are a) owes b) owed c) owns. On the basis of these accounts they can adjust what they are doing so they continue to make a profit and can plan what the business should do next. So the response to d) is paid out and to e) is plan.

4 Summary

The uses of money are:

* a medium of exchange
* a store of wealth
* a means of deferred payment
* a common measure of value

Companies keep accounting records to:

* record how much they owe
  how much they are owed
  the value of what they own
* monitor day-to-day activities to see if changes are necessary to make a profit
* plan for the future

PART B FINANCIAL ACCOUNTING

1. Introduction

In the rest of this unit we will look at the accounting methods which:

* show how much a company owes, is owed and what it owns

  This is called FINANCIAL ACCOUNTING

* examine the prices of the products sold and the costs involved in making the products

  This is called COST ACCOUNTING

* help to make future plans

  This is called MANAGEMENT ACCOUNTING

Now we can see that, unless they work in an Accountancy Office, supervisors will not often be concerned with Financial Accounting. Management Accounting, which is about future plans, can only start from the cost basis of today. What supervisors do and the records they keep provides this cost data for these future plans - so you'll be involved here, but not directly; you may not ever be aware of the vital part you play!

But, look at what Cost Accounting is really all about - costs. Now all supervisors are directly concerned in costs. So we will spend most of our time on Cost Accounting.

Let's begin with a brief look at financial accounting. It can sometimes be useful to be able to understand financial accounts without necessarily needing to know how to do them. If you work for a public limited company, your organisation will publish accounts each year. Published accounts for public limited companies are usually quite easy to obtain and as Frank Wood points out one of the first things you need to make sense of them is to

REFERENCE 2
page 62

"UNDERSTAND THE TERMS (LANGUAGE) OF FINANCIAL STATEMENTS"

2 Basis of Financial Accounting

You'll probably recall from Part A that we grouped three of our reasons for accounts:

What the company owes
What the company is owed
What the company owns

These three items form the basis of Financial Accounting. So let's get into these items and see how they are handled by accountants and even some of the common terms or words they use to describe them.

3 Creditors and Debtors

Let's assume you lend me £5; -

you are my CREDITOR

Now let's assume I lend you £10:-

you are now my DEBTOR

Creditors and debtors are terms used in financial accounting. These terms are used in the next activity, see how well you understand them - you'll need to be careful because sometimes the way the words are used can be a little confusing:

ACTIVITY 5
Time guide
2 mins

Respond to the statements by writing a suitable word in the spaces provided.

The company which employs you sends a shipment of its products to a company in Australia. It allows the Australian company 6 weeks in which to pay.

For that six weeks the Australian company is your company's _____

During this same 6 weeks your company is a _____ to the Australian company.

Look these up in a dictionary:

a DEBTOR is someone who is in DEBT to someone

a CREDITOR is someone who is in CREDIT with someone

* the Australian company is in debt to your company and is your company's debtor

* and your company is in credit with the Australian company and is their creditor

So:

IF YOU OWE SOMEONE MONEY YOU ARE A DEBTOR

IF YOU ARE OWED MONEY YOU ARE A CREDITOR

It's clear then that debtors and creditors only occur when goods are bought and sold on some kind of credit arrangement.

Now we know what is meant when we talk about debtors and creditors, let's remind ourselves that companies own things too.

They may own:

* the factory and office buildings

* the machinery in the factory and offices

* a motor-van

* goods made in the factory which are for sale

These things can all be sold for money or, if kept, can still be measured by money. So they can all appear in a financial report as having a cash value.

However, before we can really see if we are short of cash or have a surplus we need to do some sums. So we move on to do just this.

4 Assets and Liabilities

We all like to know if we are in debt or credit. To do this we could put all our debts into one list and our credits into a second list and see which total is the larger.

But we have a bit of sorting out to do first. If we want to add up our debts and credits then all the things we owe, are owed and the things we own must be listed under the proper headings. These headings are words we are familiar with in life - ASSETS and LIABILITIES. We like to have assets but don't enjoy liabilities.

It's the same in business:

* a typewriter

* an article produced in the factory for sale

* cash in the bank

* money owed by a customer

are of value to the business because they can be used by the business or will bring money into the business.

THINGS THAT ARE OF VALUE TO A BUSINESS ARE CALLED - ASSETS

Other things dealt with in financial accounts like:

* money owed to a supplier

* rates owed to the council

represent claims against the business.

CLAIMS AGAINST A BUSINESS ARE CALLED - LIABILITIES

Let's look at a list of the sort of things we've dealt with to here.

SELF CHECK 3
Time guide
2 mins

If you owned a small company then you could have a number of items listed in your accounts. You would need to decide whether each item was an asset or a liability. Look at each of these items and decide whether it is an asset or a liability and put a tick in the appropriate column - take extra care with Debtors and Creditors, it's easy to get confused:

	ASSETS	LIABILITIES
* DEBTORS		
* CREDITORS		
* CASH IN BANK		
* BUILDINGS		
* MACHINERY		
* VEHICLES		
* GOODS FOR SALE		

The answers to this self check are here in the following words, so you'll need to check out your answers carefully. Our list of assets is debtors, cash in the bank, buildings, machinery, vehicles, goods for sale and there is only one liability - creditors.

The only claim against the business is from the CREDITORS - (someone to whom money is owed).

The other items: DEBTORS - (people who owe you money)
CASH IN THE BANK
BUILDINGS
MACHINERY
VEHICLES
GOODS FOR SALE

are all of value to the business. They can be used by the business or sold to bring in money.

Now let's have a closer look at our list of Assets:

* DEBTORS
* CASH IN THE BANK
* BUILDINGS
* MACHINERY
* VEHICLES
* GOODS FOR SALE

Some of these assets like:

* BUILDINGS
* MACHINERY
* VEHICLES

are going to be kept and used by the business.

These sort of assets are called:

FIXED ASSETS

this means that the asset is worth money but not normally sold to convert it into cash.

However the assets which are already cash like:

* CASH IN THE BANK

or are going to be turned into cash very quickly like:

* CREDITORS' PAYMENTS TO YOU
* GOODS FOR SALE

are called:

CURRENT ASSETS

We have already decided that in our list, there is only one claim against the business - one LIABILITY:

* CREDITORS

Now we know that creditors are people to whom we owe money and they will want to be paid as soon as possible, so creditors are called:

CURRENT LIABILITIES

Other people like:

* Inland Revenue
* Shareholders who are due to be paid some money on their shares will want to be paid in time so they will also be

CURRENT LIABILITIES

SELF CHECK 4
Time guide
3 mins

Respond by writing TRUE or FALSE in the space provided against the following statements.

In financial accounting:

a) A warehouse is a CURRENT ASSET _____

b) A drilling machine used on the shop floor is a FIXED ASSET _____

c) Money owed to suppliers for goods bought on credit is a CURRENT LIABILITY _____

d) Furniture made in the factory for sale to customers is a FIXED ASSET _____

e) Money owed by customers who have bought goods from you on credit is a CURRENT ASSET _____

f) Cash in the office till is a CURRENT ASSET _____

The answers to this self check are here in the following words, so you'll need to check out your answers carefully. a) A warehouse is a Fixed Asset. Normally it will be kept by the business and not sold to be turned into cash. So this statement is false. b) A drilling machine used on the shop floor will also be kept and used by the business and not sold to be turned into cash, so this statement is true. c) Suppliers are creditors and will require paying as soon as possible, so this statement is true. d) Furniture made in the factory for sale to customers will be expected to bring cash into the business fairly quickly, and is therefore a current asset, so this statement is false. e) These people are debtors and we will expect them to pay reasonably soon, so this statement is true. f) Cash or things which are going to be turned into cash relatively quickly are current assets, so this statement is true.

5 Balance Sheets

From time to time - say monthly or quarterly but at least once per year - all the ASSETS and LIABILITIES of a business are shown as money in a statement called a BALANCE SHEET.

Balance Sheets can be set out in several ways. Here is one way.

ASSETS	£	LIABILITIES	£
FIXED		(we will put an entry into this section in a moment)	
CURRENT		CURRENT	

Let's look again at the sort of things dealt with, in money terms, in financial accounts but this time place some values against them:

	£
* DEBTORS	1,000
* CREDITORS	500
* CASH IN THE BANK	1,000
* BUILDINGS	4,000
* MACHINERY	800
* VEHICLES	1,000
* GOODS FOR SALE	500

Let's put these values in the Balance Sheet.

ASSETS	£	£	LIABILITIES	£
FIXED				
BUILDINGS	4,000		(we will put an entry here shortly)	
MACHINERY	800			
VEHICLES	1,000			
		5,800		
CURRENT			CURRENT	
DEBTORS	1,000		CREDITORS	500
CASH IN THE BANK	1,000			
GOODS FOR SALE	500	2,500		
		8,300		500

So: Assets = £8,300 (things that are of value to the business)

Liabilities = £ 500 (claims against the business)

Now if we deduct the claims against the business (Liabilities) from the things that are of value to the business (Assets) we are left with £7,800 which is called the SURPLUS or CAPITAL in the business.

So if this business sold all its assets (£8,300) and paid all its liabilities it would be left with £7,800 (surplus or capital) which would belong to the owners of the business.

Now to what might seem a little confusing at first: our business is showing a surplus or capital of £7,800. It doesn't belong to the business, it can only belong to a person or persons. In this case it belongs to the owner of the business - so because the business owes money to the owner this money is shown as a liability of the business.

So the surplus or capital in a business belongs to the owners of the business. It is the owners' claim against the business and is therefore a LIABILITY. So we'll put it in as a capital liability:-

Now to complete the Balance Sheet:

ASSETS	£	£	LIABILITIES	£
FIXED			CAPITAL	7,800
BUILDINGS	4,000			
MACHINERY	800			
VEHICLES	1,000			
		5,800		
CURRENT			CURRENT	
DEBTORS	1,000		CREDITORS	500
CASH IN THE BANK	1,000			
GOODS FOR SALE	500	2,500		
		8,300		8,300

Now we see why we call this account a balance sheet -

the total assets = total liabilities.

SELF CHECK 5
Time guide
5 mins

Here is a list of items to be entered on a balance sheet.

Decide which of them are assets and which are liabilities and write them on the appropriate part of the balance sheet below.

Calculate the capital (which is total assets minus current liabilities) and enter the capital in the right place on the balance sheet.

	£	
* DEBTORS	10,000	There are:
* FACTORY	50,000	3 fixed assets
* VAN	1,000	3 current assets
* GOODS FOR SALE	3,000	1 current liability
* CASH IN THE BANK	800	You need to calculate
* CREDITORS	12,000	our 1 capital liability
* DRILLING MACHINE	8,000	

ASSETS	£	£	LIABILITIES	£
FIXED		Totals	CAPITAL	* _____
*	_____			
*	_____			
*	_____	* _____		
CURRENT			CURRENT	
*	_____			
*	_____			
*	_____	* _____	*	_____
Total		_____	Total	_____

This is what the balance sheet should look like.

You'll recall that

capital liability = TOTAL ASSETS MINUS CURRENT LIABILITIES:

ASSETS	£	£	LIABILITIES	£
FIXED			* CAPITAL	60,800
* FACTORY	50,000			
* VAN	1,000			
* DRILLING MACHINE	8,000	59,000		
CURRENT			CURRENT	
* GOODS FOR SALE	3,000		* CREDITORS	12,000
* DEBTORS	10,000			
* CASH IN THE BANK	800	13,800		
	Total	72,800	Total	72,800

You'll notice that the total of the assets side of the balance sheet is the same as the total of the liabilities side of the balance sheet. We should stop for a minute to think about what a balance sheet tells us.

REFERENCE 3
Page 62

WCF Hartley in "An Introduction to Business Accounting for Managers" tells us that

> "A balance sheet can never tell us what a business is worth, because this simply is not the purpose of a balance sheet"

What it does tell us is the make up of the organisation at a particular point in time. In other words, how the business is financed. In our previous self check for example, the business is made up of three different fixed assets and three different current assets. These assets are financed by £60,800 worth of capital and £12,000 worth of credit at the time the balance sheet is drawn up.

If you own a house, it may be worth say £30,000. You may have put down a deposit taken out a mortgage and bought contents worth say £10,000 either by cash or on credit. If we put figures to your HP commitments, your mortgage, your deposit, any loans and overdrafts, we could draw up a similar picture of how your house is financed at any point in time.

Perhaps the best way of thinking of the balance sheet is as a snap shot of how the business is made up at the time the balance sheet was drawn up. It is a static picture of a particular moment in time. It will change as cash in the bank is spent, or when our debtors pay their debts, or when we pay our creditors.

That's our introduction to financial accounting.

However before moving on to the type of accounting in which you, as a supervisor, will be more directly involved, let's think about why Assets are separated between Fixed and Current.

SELF CHECK 6
Time guide
1 min

Respond by completing the following statements with a suitable word.

a) Assets which are to be kept and used in the business are _____ assets.

b) Assets which are expected to be turned into cash very soon are _____ assets.

The answers to this self check are here in the following words, so you'll need to check out your answers carefully. Assets which you keep and use in the business are fixed assets. Assets which you can expect to turn into cash quite quickly are current assets.

Current assets are separated from the Fixed Assets because a Company needs to know how much cash, and things which are "nearly cash", it has.

So current assets are actual cash or things like:

* goods for sale

which will soon be turned into cash.

Now you as a supervisor may be directly involved in making the "goods for sale" and because:

SALES minus COSTS = PROFITS (this is putting it rather simply but it's true)

the lower the costs the larger the profits.

COST ACCOUNTING is about the costs involved in production, and it's these costs that day-to-day are management's concern. So we can say:

COST AND MANAGEMENT ACCOUNTING IS ABOUT THE COSTS OF PRODUCTION

6 Summary

* FINANCIAL ACCOUNTS record how much a company owes, is owed and owns, so that it knows how much profit is being made.

* COST ACCOUNTS examine the prices of the products sold and the cost involved in making them

* MANAGEMENT ACCOUNTS help to make future plans

* People or companies to whom you owe money are CREDITORS

* People or companies who owe you money are DEBTORS

* Things which are of value to the company because they may bring in money or could be sold are ASSETS

* Claims against the company are LIABILITIES

* Assets are either:

  CURRENT - they are or could be turned into cash fairly quickly

or

  FIXED - they are kept and used by the business rather than being turned into cash

* BALANCE SHEETS are records of all the company's assets and liabilities balanced against each other. They show us how the business is made up.

PART C COST AND MANAGEMENT ACCOUNTING

1 Introduction

We only looked briefly at FINANCIAL accounting because it's clear that much of this has little direct relevance to supervisors in general. This is also true of MANAGEMENT accounting which we look at in part D - once again only briefly for the same reason.

EXTENSION 2
Page 61

However, when we turn to COST accounting it soon becomes clear that the supervisor is very much involved day-to-day in COST matters. So we will spend much more time on this crucial form of accounting.

2 Company Costs

The TOTAL COSTS of a Company are made up of things like:

* wages
* salaries
* electricity
* purchase of steel, wood or whatever material your company uses

These costs are deducted from the SALES of the Company, the difference is PROFIT. So:

SALES minus COSTS = PROFIT

ACTIVITY 6
Time guide
1 mins

Respond by completing the following statements with a suitable word.

A business can therefore become more profitable by either:

a) _____ the price of the things it sells

b) _____ the costs involved in producing the things which it sells.

---

a) putting up the price of the things it sells may increase the business income - so we could have used increase or raise, here. b) lowering the costs would have a similar effect, so we could have used reduce or lower. Other words with the same meaning are also suitable.

So a company can either increase its prices or decrease its costs.

However there are many dangers attached to increasing the price of goods or services.

ACTIVITY 7
Time guide
2 mins

Suppose the price of your favourite biscuits was suddenly increased by a large amount. Let's say the price doubles.

Jot down two things you might do.

* _____

_____

* _____

_____

Well you might:

* buy fewer biscuits

* stop buying the biscuits

* buy the biscuits made by a competitor

* buy an alternative product e.g. cake

So people who buy your employer's products may decide to do the same if your company increases its prices.

HOWEVER, IF YOU REDUCE COSTS YOU CAN INCREASE THE COMPANY'S PROFITS WITHOUT THE RISK OF LOST SALES

As a supervisor you probably don't have much to do with fixing the selling price but you are in a position to affect costs so that's what we'll concentrate on.

REFERENCE 4
Page 62

W M Harper in his book "Cost Accounting" makes a distinction between Direct and Indirect costs, and Fixed and Variable costs. We'll be looking at these types of cost a little later on. For the moment, let's quickly define fixed costs as those which stay the same no matter how much we make, and variable costs as those which change as the amount we produce changes.

As a supervisor you will be mainly concerned with the following costs:

* Labour costs

* Materials costs

Let's look at these two classes of costs in turn.

3 Labour Costs

There are two stages when you as a supervisor can help in controlling labour costs.

STAGE 1 Before a new member of your workteam is appointed

STAGE 2 When the new member becomes part of your workteam

So how can you as a supervisor help in controlling labour costs BEFORE a new member of your workteam joins the company?

Well, you could help in the selection of the new employee.

STAGE 1 - before a new member of your workteam is appointed - this is all about selection:

ACTIVITY 8
Time guide
2 mins

A member of your workteam is leaving because he has obtained a higher paid job with another employer.

He is a good member of your team and you'll be sorry to see him go.

He is:

* very rarely off sick
* willing to turn his hand to any new developments and to help out with jobs other than his own
* well qualified and has gained a lot of experience in your section

So how can you as a supervisor attempt to ensure that your new workteam member will be satisfactory?

In the space provided below jot down three things which you could ask the personnel manager to look for when interviewing applicants for the vacancy in your workteam. For example, you could ask for the person to be physically fit for the job.

* _____
* _____
* _____

Other things you might look for could be:

* Qualifications - experience may have taught you that people with a particular qualification are usually more capable.

* Particular working background - you may know that people from a particular working background have received a more thorough training.

* Flexibility - it is always an advantage to have workteam members who can perform several tasks efficiently - to cover for: holidays
  sickness
  absenteeism
  abnormal workload
  etc.

* Ability to work with the minimum of supervision

* Good time-keeping

* Good attendance record

* Ability to work as a member of a team

You may well have thought of some others.

If possible you should also seek the opportunity to:

* talk to the applicants

* help to make the final choice

You can play a valuable part here because if the right person is selected your workteam will be more efficient. So:-

EXTENSION 3
page 61

PROPER SELECTION CAN HELP REDUCE COSTS

Now to our second stage:

STAGE 2 - when the new member becomes part of your workteam - this is really about induction.

There are many different sorts of things to tell new members when introducing them to the workplace:

* health and safety

* wages - what to do if payments are incorrect

* names, and where to find people like:

  trades union representatives
  nurse
  person organising social events etc.

However at this moment we're just interested in costs.

Two very important documents concerned with controlling labour costs are:

* clock card - or other document of attendance

* time sheet - or other document of time spent on each job.

Let's look at the clock card first:

ACTIVITY 9
Time guide
2 mins

Why is accurate clocking on and off essential?

Jot down TWO reasons.

* _____

* _____

Well, the information from clock cards may be used to calculate:

* wages
* overtime
* bonus

| So that the correct wages are paid

and will also produce information for:

* absenteeism

* poor time-keeping etc.

These will all help you to maintain control over your workteam's performance. However it is also very important that:

THE TOTAL OF THE HOURS ON THE CLOCK CARDS IS ACCOUNTED FOR IN THE WORK PLACE

This is done by the completion of time sheets - our second point of control of labour costs.

A typical time sheet looks like this:

NAME: _____ TIME SHEET No. _____ WEEK ENDING _____

	DEPT.	WORK COMPLETED	MATERIAL USED QTY.	MATERIAL USED DESCRIPTION	START TIME	FINISH TIME	TOTAL HOURS
MON							8
TUES							8
WED							8
THUR							8
FRI							8
SAT							NIL
SUN							NIL
						TOTAL HOURS	40

SIGNED: CHECKED: SUPERVISOR

I have only completed the total hours column which shows a total of 40 hours worked during the week.

If this cannot be confirmed by the hours shown on the clock card then something is wrong and must be looked into.

However, other information shown on the time sheet is also very important.

3.1 Direct and Indirect Labour Costs

On the following time sheet I have completed one further column which shows the type of work completed.

NAME: _____ TIME SHEET No. _____ WEEK ENDING _____

DEPT.	WORK COMPLETED	MATERIAL USED QTY.	MATERIAL USED DESCRIPTION	START TIME	FINISH TIME	TOTAL HOURS
MON	Operating Production Machines					8
TUES	Cleaning					8
WED	Operating Production Machines					8
THUR	Operating Production Machines					8
FRI	Maintenance					8
SAT						NIL
SUN						NIL
					TOTAL HOURS	40

SIGNED: CHECKED:

It shows that

* 24 hours were spent operating a production machine
* 8 hours were spent cleaning
* 8 hours were spent on maintenance

Now wages which can be totally allocated to a particular product are usually called:

DIRECT LABOUR COSTS

Some examples of DIRECT LABOUR are:

* painting a product
* welding a part
* sewing a garment

Wages which cannot be allocated to a particular product are:

INDIRECT LABOUR COSTS

Examples of INDIRECT LABOUR are:

* oiling the machines
* sweeping the floor
* painting the factory

None of these can be allocated directly to a particular item of production, therefore they are classed as INDIRECT LABOUR COSTS.

ACTIVITY 10
Time guide
2 mins

Our earlier example of a time sheet gives the following allocation of hours:

* 24 hours spent operating a production machine
* 8 hours spent cleaning
* 8 hours spent on maintenance duties

Now which of these hours are DIRECT LABOUR and which are INDIRECT LABOUR?

Complete the two statements by entering the appropriate number of hours:

The number of hours employed on DIRECT LABOUR was _____ hours.

The number of hours employed on INDIRECT LABOUR tasks was _____ hours.

---

* The 24 hours employed on the production machine can be allocated in total to the product being made and will therefore be DIRECT LABOUR HOURS.

* The time spent on cleaning, 8 hours, and the 8 hours spent on maintenance cannot be allocated directly and in total to things being produced therefore they will be INDIRECT LABOUR HOURS.

Now let's look at some other examples of INDIRECT and DIRECT LABOUR COSTS.

ACTIVITY 11
Time guide
2 mins

Suppose you have a greenhouse and your son, a boy scout, is very keen to earn extra pocket money by helping you to look after the greenhouse and the plants.

You grow a variety of things in the greenhouse including 10 tomato plants. You agree to allow your son to look after the tomato plants and carry out some other tasks.

You also agree to pay him, for his labour, as follows:

	Annual Cost (£)
Watering and looking after the 10 plants £2 per year per plant	20
Painting the greenhouse	10
Cleaning the glass	10
TOTAL annual payments	40

Now which of these payments do you consider to be INDIRECT LABOUR COSTS and which DIRECT LABOUR COSTS? Write INDIRECT or DIRECT against each task:

Watering and looking after the plants _____

Painting the greenhouse _____

Cleaning the glass _____

Well, watering and looking after the plants (£20) is a DIRECT LABOUR COST because it can be allocated completely to something which is being produced - in these circumstances tomato plants.

The costs of painting the greenhouse and cleaning the glass cannot be linked directly to any one of the things you grow in the greenhouse therefore this is an INDIRECT LABOUR cost. This cost will be spread over all the saleable products during that year.

Alright, so you've paid your son £40 for looking after 10 tomato plants and for doing other tasks. Let's assume that no other saleable products were produced. This means you have paid £40 in labour costs for growing 10 tomato plants.

This works out at £4 per plant.

ACTIVITY 12
Time guide
5 mins

Next year you decide to grow 20 tomato plants, so what will your total labour costs be next year?

You offer your son the same rates.

Against each of the tasks done by your son, enter how much it is going to cost you, in labour costs, to grow the 20 plants.

	Annual labour costs (£)
Watering and looking after 20 tomato plants	_____
Painting the greenhouse	_____
Cleaning the glass	_____
Total labour costs for growing 20 plants	_____

	Annual labour costs (£)
Well watering and looking after 20 plants will cost you, for labour, 20 x £2.	40
Painting the greenhouse This labour cost will not increase.	10
Cleaning the glass This cost will not increase.	10
Total labour costs for growing 20 plants	60

31

So the total labour costs were £60 for 20 tomato plants grown or:

* £3 for each plant

You'll recall that for 10 tomato plants the cost was £4 for each plant.

Now we were able to work this out in advance because:

* we knew which labour costs were INDIRECT and which were DIRECT

DIRECT LABOUR COSTS, like operating a machine, are always connected directly to production. In other words they are a variable cost.

INDIRECT LABOUR COSTS, like maintenance and cleaning, happen all the time whether something is being produced or not. In other words, they are a fixed cost.

You can now go ahead and grow as many tomato plants as you wish and you will know exactly how much it is going to cost you, however many you grow.

The same principle applies in your workplace. To enable management to plan ahead with confidence it is very important that time sheets are completed carefully and correctly to enable DIRECT LABOUR HOURS to be separated from INDIRECT LABOUR HOURS because:

* DIRECT LABOUR COSTS ONLY OCCUR WHEN SOMETHING IS BEING PRODUCED

* INDIRECT LABOUR COSTS OCCUR WHETHER OR NOT SOMETHING IS BEING PRODUCED

Let's look at a company making two products, boots and shoes.

Ten machine operators work 40 hours per week and are paid £5 per hour.

These are the only DIRECT LABOUR COSTS.

ACTIVITY 13
Time guide
1 min

Write in the total DIRECT LABOUR COST per week

* _____

---

10 x 40 x £5 = £2000

In addition to this we have other weekly costs like:

* indirect labour costs
* purchase of leather
* electricity
* office staff salaries
* motor vehicle running costs, etc.

Let's say these come to another £5,000 per week.

Weekly sales are:
* Boots £6,000
* Shoes £6,000

SELF CHECK 7
Time guide
2 mins

So, how much profit is the company making per week?

Remember:

SALES minus COSTS = PROFIT

Complete the following by entering the amounts:

SALES £ _____ minus COSTS £ _____ = PROFIT £ _____

The answers to this self check are here in the following words, so you'll need to check out your answers carefully. The total sales is £12,000, the total costs are £7,000, so the total profit is £5,000.

Well, we see that on weekly sales of £12,000 we make a weekly profit of £5,000. The accountants could work out from this that the profit on sales is 42% which is satisfactory.

However what would the position be if the machine operators' time sheets were filled in incorrectly?

Suppose the 10 machine operators waited until a Friday afternoon to complete their time sheets and for the whole of the week completed them as follows:

NAME: _____ TIME SHEET No. _____ WEEK ENDING _____

DEPT.	WORK COMPLETED	MATERIAL USED QTY.	MATERIAL USED DESCRIPTION	START TIME	FINISH TIME	TOTAL HOURS
MON	BOOTS and SHOES					8
TUES	BOOTS and SHOES					8
WED	BOOTS and SHOES					8
THUR	BOOTS and SHOES					8
FRI	BOOTS and SHOES					8
SAT						NIL
SUN						NIL

SIGNED: CHECKED: TOTAL HOURS 40

This shows that an equal amount of time has been spent on Boots and Shoes. But these entries may not have been accurate and some details were not remembered correctly.

Let's suppose that time sheets should have been filled in like this:

NAME: _____ TIME SHEET No. _____ WEEK ENDING _____

DEPT.		WORK COMPLETED	MATERIAL USED QTY.	MATERIAL USED DESCRIPTION	START TIME	FINISH TIME	TOTAL HOURS
MON		BOOTS					8
TUES		BOOTS					8
WED		SHOES					8
THUR		BOOTS					8
FRI		SHOES 4 HOURS BOOTS 4 HOURS					8
SAT							NIL
SUN							NIL

SIGNED: CHECKED:

So we see that an equal amount of time was NOT spent on Boots and Shoes and the correctly filled in time sheets show:

	PRODUCTION HOURS	
	BOOTS	SHOES
MON	8	
TUES	8	
WED		8
THUR	8	
FRI	4	4
	28	12

We'll assume that all the 10 operators work in the same way:

* 28 hours per week on Boots

* 12 hours per week on shoes

Now let's review the situation.

Remember the operators are paid £5 per hour. Other costs total £5,000 per week (£2,500 can be allocated to Boots and £2,500 allocated to Shoes). Weekly sales are: Boots £6,000
Shoes £6,000

Now we're able to work out the correct profit:

* on the sale of Boots

* on the sale of Shoes

SELF CHECK 8
Time guide
2 mins

Let's look at Boots first.

Complete the following by entering the amounts.

SALES £ _____ minus COSTS £ _____ = PROFIT £ _____

Remember COSTS = DIRECT COSTS (WAGES IN THIS CASE) + INDIRECT COSTS

The answers to this self check are here in the following words, so you'll need to check out your answers carefully. Well, the sales are £6,000. Direct Labour Costs are: 28 hours per week @ £5 per hour which equals £140 each for ten operators which totals £1,400. Other costs total £2,500. Total costs are therefore £3,900 - leaving a profit on Boots of £2,100.

We now see that sales of Boots totalled £6,000 and the profit on those sales was £2,100.

Accountants could work out from this that the profit on sales of boots was really only 35% which is a lot less satisfactory than 42% - the figure arrived at when the time sheets were filled in incorrectly.

SELF CHECK 9
Time guide
2 mins

Now let's do the same for SHOES.

Complete the following by entering the amounts:

SALES £ _____ minus COSTS £ _____ = PROFIT £ _____

The answers to this self check are here in the following words, so you'll need to check out your answers carefully. Sales are the same as for BOOTS: £6,000. Direct Labour costs are: 12 hours per week @ £5 per hour which equals £60 each for 10 operators which totals £600. Other costs total £2,500. Total costs are therefore £3,100 - leaving a profit on shoes of £2,900.

Sales of shoes totalled £6,000 and the profit on those sales was £2,900.

This gives a percentage profit on sales of 48%.

So we now know:

it is more profitable to produce shoes than boots (because the TIME SHEETS were completed accurately).

Without this accurate information from time sheets management may have decided to:

* produce more boots
* produce fewer shoes

The effect on profits would have been disastrous.

So it is very important that time sheets are:

* completed carefully - jobs against hours

* completed accurately - to your satisfaction

* kept up to date - job-by-job or day-by-day

Labour costs can then be analysed to show:

* indirect labour costs

* direct labour costs

* the time spent making different products

Management can then plan and make decisions with confidence.

TIME SHEETS LIKE THESE ARE A CRUCIAL PART OF A COST ACCOUNTING SYSTEM

SELF CHECK 10 Respond by completing each sentence with a suitable word or words.
Time guide
2 mins

a) Two very important documents used in controlling labour costs are clock cards and _____ _____.

b) The total time recorded on time sheets must agree with the total times shown on the _____ _____.

c) Time sheets must be completed accurately so that DIRECT labour hours can be separated from _____ labour hours.

d) If management decide to increase production then _____ labour costs may not increase.

The answers to this self check are here in the following words, so you'll need to check out your answers carefully. a) The two documents used in controlling labour costs are clock cards and time sheets. b) To maintain control you must be sure that the total time recorded on time sheets agrees with the total time shown on the clock cards. c) Accurate completion of time sheets should enable you to distinguish direct labour hours from indirect labour hours. d) Indirect labour costs may not increase - they will occur irrespective of production.

4 Materials Costs

Material costs can account for more than half of the total costs of production.

If we think of industries like:

* aeroplane manufacturers
* shipbuilding
* car manufacturers
* furniture manufacturers

we can appreciate that the costs of materials like:

* steel
* wood
* electronic equipment

will make up much of the total costs of the finished product.

4.1 Direct and Indirect Materials Costs

We already know that Labour costs can be broken down into Direct and Indirect categories. Material costs can also be divided into:

* Direct materials costs

* Indirect materials costs

We'll look at these in some detail:

DIRECT MATERIALS COSTS

These are the costs of materials like:

* wood
* steel
* glass
* paint
* bolts
* springs
* component parts etc.

DIRECT MATERIALS COSTS CAN BE ALLOCATED DIRECTLY AND IN TOTAL TO AN ITEM BEING PRODUCED

INDIRECT MATERIALS COSTS

These are the costs of materials like:

* cleaning materials

* cotton rags

* lubricants for the machinery, etc.

INDIRECT MATERIALS COSTS CANNOT BE ALLOCATED IN TOTAL AND DIRECTLY TO AN ITEM BEING PRODUCED

However there is a problem - some materials costs can be either indirect of direct.

Suppose you work for a company which makes a range of timber products. One of the items is garden sheds which are all painted green. The factory premises are also painted green.

ACTIVITY 14
Time guide
1 min

Respond by completing the statements with a suitable word or words.

The paint used on the factory is _____ material cost.

The paint used on the garden sheds is _____ material cost.

The paint used on the factory premises is an indirect materials costs because it cannot be allocated in total nor directly to the garden sheds.

The paint used on the garden sheds is a direct materials cost because it can be allocated directly and in total to the making of the sheds.

Now why is it necessary to separate direct and indirect labour costs?

When we talked about labour costs we appreciated how important it is to separate direct from indirect costs.

The same applies to materials costs. Let's look at another example which emphasises the need to split costs between indirect and direct, but this time we'll deal with materials costs.

Suppose you work for a company which makes paper towels and toilet rolls. The manufacture of paper involves the use of an enormous amount of water which attracts a very high charge from water authorities.

ACTIVITY 15
Time guide
2 mins

Respond by completing the statements with a suitable word or words:

Water used for the production of paper is _____ material cost.

Water used in the canteen and toilets is _____ material cost.

The water used to produce the paper is a direct materials cost but the water used in the canteen and the toilets CANNOT be allocated directly to production and is therefore an indirect materials cost.

The cost of water to this company is only high because of paper production. It is not high because of water consumption in the canteen. If we don't separate the water cost into direct and indirect costs then the cost of a cup of tea in the canteen will be very high!

So how can we help to ensure that materials costs are allocated correctly?

When dealing with materials in the workplace one important document is the one which authorises the withdrawal of items from the stores - the materials requisition form.

A typical form might look like this:

MATERIALS REQUISITION FORM

FORM No. _____

JOB No. _____ COST CODE _____ DATE _____

ITEM No.	DESCRIPTION	QUANTITY	FOR COST OFFICE USE

AUTHORISATION _____
SUPERVISOR

Supervisors can make sure that the form is correctly completed BEFORE signing it so that the COST ACCOUNTANT can allocate the costs of materials correctly between:

* INDIRECT MATERIALS COSTS

* DIRECT MATERIALS COSTS

Suppose your company uses the following coding system:

	Cost code
Indirect materials	001
Direct materials	002

ACTIVITY 16
Time guide
2 mins

Complete the cost code on the following materials requisition forms.

MATERIALS REQUISITION FORM

FORM No. 1

JOB No. 44 COST CODE * DATE 1/2/1985

ITEM No.	DESCRIPTION	QUANTITY	FOR COST OFFICE USE
76	Green paint for garden sheds made for re-sale	40 litres	

AUTHORISATION K Goodie
SUPERVISOR

MATERIALS REQUISITION FORM

FORM No. 2

JOB No. 76 COST CODE * DATE 1/2/1985

ITEM No.	DESCRIPTION	QUANTITY	FOR COST OFFICE USE
43	Hinges for garden shed doors (sheds for re-sale)	4 dozen	

AUTHORISATION K Goodie
SUPERVISOR

MATERIALS REQUISITION FORM

FORM No. 3

JOB No. 53 COST CODE * DATE 4/2/1985

ITEM No.	DESCRIPTION	QUANTITY	FOR COST OFFICE USE
76	Green paint for factory roof	10 litres	

AUTHORISATION K Goodie
SUPERVISOR

MATERIALS REQUISITION FORM

FORM No. 4

JOB No. 82 COST CODE * DATE 12/2/1985

ITEM No.	DESCRIPTION	QUANTITY	FOR COST OFFICE USE
107c	Overalls for work team members	1 dozen	

AUTHORISATION K Goodie
SUPERVISOR

On materials requisition forms numbered 1 and 2 the cost code will be 002.

On materials requisition forms numbered 3 and 4 the cost code will be 001.

OK. So we have direct and indirect materials costs to deal with. We also know that these materials must be kept in store ready for use - this also costs money. Let's see how we deal with these costs.

5 Stock Costs

Let's see what is involved when we have materials in stock.

ACTIVITY 17
Time guide
3 mins

You work at a fishing port for a company which packs fresh fish.

One item you use all the time is ice which is purchased from an ice manufacturer.

Jot down two costs which you would have to pay as a result of buying AND keeping a stock of ice.

* _____

* _____

Well, top of your list will probably be

* the cost of the ice.

Here are the other costs:

* holding costs like: cost of storage - refrigeration costs

  interest charges if the ice is bought with borrowed money

  loss of interest if the money used to buy ice could have been invested instead

* re-order costs like the clerical costs of preparing purchase orders, goods received notes etc.

* stock-out costs - what it would cost in lost sales and ruined fish if you ran out of ice.

Now these same costs apply in other working situations. So how can you, as a supervisor, help to keep these costs as low as possible?

We can deal with this question by looking at these costs in more detail.

5.1 Holding Costs

There are many costs involved in holding stock. Some of them are:

* Tying up money which could be doing something else like earning interest

* If the money to buy the stock is borrowed money, then interest will be charged on the amount borrowed

* If stocks have to be kept refrigerated, like meat, then there are refrigeration costs

* If stocks have to be kept warm, like pets or tropical plants, then there are heating costs

* If stocks are bulky, like foam for cushions or beds, they will occupy a lot of space for which rent and rates have to be paid

So there are lots of holding costs which need to be controlled. To do this, management can set a MAXIMUM STOCK LEVEL for all items of stock held. This enables management to calculate what the maximum stock holding costs will be at any one time.

To see how you as a supervisor can help to control stock holding costs we'll look at another small case incident:

ACTIVITY 18
Time guide
3 mins

Suppose you are employed as a supervisor by a company which assembles hi-fi equipment.

There are ten people in your workteam and they are supposed to draw from the stores sufficient parts for only one day's work. Any unused parts are to be returned to the stores at the end of each working day.

Only one parts requisition form is completed each day for all ten team members.

For several months the number of parts withdrawn from stores was about the same each day with a few unused parts being returned each evening.

You now notice that the number of parts drawn from stores has started to vary from day to day and no parts are being returned at the end of the working day.

However the number of HI-FI's being assembled has not changed.

On investigation you find that some of your workteam are building up "private stocks" of parts. This is to save them the trouble of obtaining new parts from stores every morning and by not returning unused parts at night they are able to leave earlier.

Respond by completing the statements with a suitable word or words.

a) If your workteam build up private stocks of parts, instead of returning them to the stores, then the MAXIMUM STOCK LEVEL set by management will be _____.

b) If more stock is held than is intended then the _____ costs will be greater than planned.

In the case study we've just looked at, the maximum stock level will be exceeded if your workteam build up private stocks of parts and the stock holding costs will be greater than planned. Other words with the same meaning are also suitable.

We should ensure that:

THE ONLY PLACE STOCKS ARE HELD IS IN THE STORES

There is one other danger if your workteam holds their own stocks:

* stores will see stocks getting low and re-order too soon

So let's examine what might happen when an item of stock is RE-ORDERED.

5.2 Re-order costs

The costs of re-ordering stocks for stores are made up of a whole series of costly activities, look at the list of possible activities:

* a purchase request	made out by store keeper to the buying office
* quotation procedure	if the company doesn't have a regular supplier they may send out for quotations to a number of possible suppliers
* a purchase order	this will be prepared, with copies going to a number of different departments in the company for recording and costing
* goods received	when the goods arrive they will need to be checked out and a record to this effect sent to at least the purchasing office and to the accounts department
* invoicing	an invoice will be sent to the company so it can arrange payment to the supplier
* payment	a cheque will be made out by the accounts department and the whole transaction entered into the accounts

Since several different departments have to be involved you can see that the clerical costs involved in re-ordering items of STOCK will be quite considerable.

SELF CHECK 11
Time guide
1 min

Respond by completing the statements with a suitable word or words.

a) If items of STOCK are held by workteams instead of held in the stores, then stock items might be _____ too soon.

b) If re-orders are made unnecessarily, then the maximum stock level will be increased causing additional _____ _____ costs.

The answers to this self check are here in the following words, so you'll need to check out your answers carefully. a) if items of stock are incorrectly held then the company will not know its true stock position and items might be ordered too soon. b) if this happens, additional stock holding costs will result.

5.3 Stock-out Costs

Costs arise when items of stock are needed now and replacements have not been received - these are "stock-out" costs.

ACTIVITY 19
Time guide
2 mins

Jot down TWO reasons why you think stock-outs might happen:

* _____

* _____

Some typical reasons are:

* Stock levels may have fallen too low before re-ordering - before receiving the new stock, stock-outs occur.

* Suppliers may take too long to respond to the order

* Clerical errors may occur and the correct re-order instructions might not be sent to suppliers

* Other reasons outside the control of your company like:

  Strikes
  Suppliers going out of business

However, whatever the reason for the stock-out, the results can be damaging to any company.

ACTIVITY 20
Time guide
2 mins

Think about problems that stock-outs might cause. Jot down TWO stock-out problems.

* _____

* _____

Some damaging things might happen:

* lost production

* orders for customers will not be completed

* customers may decide to buy from competitors

* the company may be forced out of business

Supervisors can help prevent stock-outs in a number of ways:

* making a note of those stock-outs which occur frequently and advising the storekeeper of these.

* when we talked about the purchase price of stock items we said you could help the purchasing staff by passing on any information you get from:

  - talking to visiting salesmen
  - reading trade journals, magazines and advertising leaflets

  If stockouts happen because suppliers do not make deliveries on time, then you may already know of other suppliers who might be more reliable. If you do - tell the purchasing staff.

* you could also get ready to re-organise your workteam if stockouts did happen so that production would still continue.

Remember when we talked about labour costs, we said that if the right person was selected then your workteam would be more efficient and costs would be reduced.

One thing we said we would like to see in a workteam was:

flexibility - the ability to do several tasks efficiently to cover for changes in production - like those brought about by stock-outs.

So if your workteam is flexible then you, as a supervisor, will be able to re-organise your workteam if stock-outs occur.

6 Summary

* COST ACCOUNTING

Cost accounting examines the costs of producing goods or a service and the price they are sold for to make sure the company makes a profit.

* PROFIT = SALES - COSTS

* Costs are broadly labour costs and materials costs

* Labour costs have to be divided into:

direct labour costs -	labour costs which can be totally allocated to time spent making a particular product
indirect labour costs -	labour costs which are allocated to work other than making a product e.g. cleaning, maintenance, catering

Direct labour costs are always directly connected to production.

Indirect labour costs occur all the time whether or not you are producing.

* Materials costs include - purchase price of materials
  - holding costs
  - re-order costs
  - stock-out costs

Materials costs, like labour costs, have to be divided into direct and indirect materials costs.

PART D - MANAGEMENT ACCOUNTING

1 Introduction

Let's have the briefest of looks at Management Accounting which is about planning for the future. It might be clearer to say that there are many things a business must, and would want to spend money on: we know however, that no-one has an unlimited supply of money, so spending must be planned.

2 Spending Plans

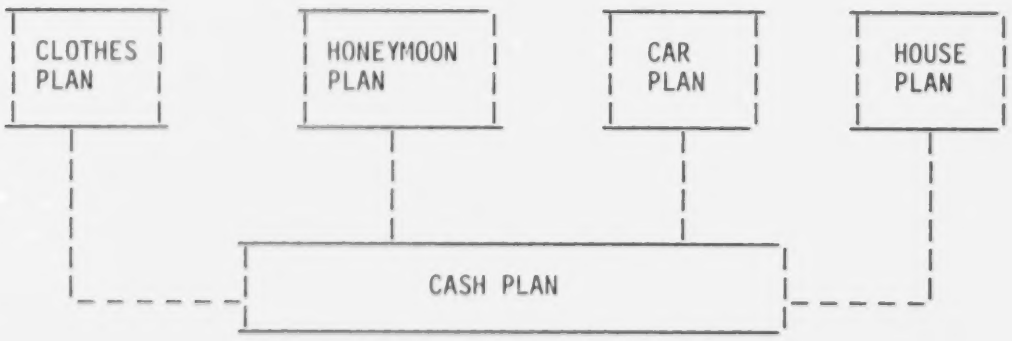
Let's suppose a young engaged couple set a date for their marriage - it's clear that their planning will include a spending plan in order to meet the bills.

They will perhaps include these items in their plan:

* clothing - wedding dress, suits and other clothing
* honeymoon - travelling and accommodation
* car - the purchase of a car
* house - the purchase of a house.

There will be many other items of course but let's put these into a cash plan.

What the couple want to know is, can they afford these items in the time available?



Once they know how much money is needed by their proposed date they can check their money resources and set out a MASTER PLAN to achieve their objectives.

A business is just the same - they decide what they want to achieve, check upon their financial resources and set out their master plan to achieve the objectives.

Business objectives would be:-

* product volume and variety next year

* profit levels in the next five years

* home sales and export sales in the next three years.

These are the kinds of things in business Master Plans the management account will contain the detailed cash-flows revenues, costs and dates which will be used to keep the business on target.

The plans which companies make are called:

EXTENSION 4
page 61

BUDGETS

Your role will be to provide budget information on

* direct materials usage

* indirect materials usage

* direct labour

* indirect labour.

SELF CHECK 12
Time guide
3 mins

Respond by completing the following with a suitable word or words.

a) Information used to complete a direct materials usage budget will be obtained from the _____ _____ form.

b) Information used to complete a direct labour budget will be obtained from the _____ _____.

c) Information used to complete an indirect materials usage budget will be obtained from the _____ _____ form.

d) Information required to complete an indirect labour budget will be obtained from the _____ _____.

The answer to this self check is here in the following words, so you'll need to check out your answers carefully. b) and d) The information for both indirect and direct labour budgets will be obtained from time sheets. a) and c) The information for both indirect and direct materials usage budgets will be obtained from materials requisition forms.

We have already stressed how important it is to accurately complete:

* time sheets

* materials requisition forms.

You will appreciate that there are many other kinds of recording documents which must also be filled in correctly and accurately. None of these documents are to be treated lightly:

THE RECORDS YOU FILL IN ARE THE SOURCE OF IMPORTANT CASH FLOWS WHICH WILL SOON APPEAR AS MONEY IN THE MANAGEMENT ACCOUNTS.

3 Summary

Management accounting is about planning for the future.

Companies plan by drawing up a set of budgets.

The set of budgets form a master plan.

The records supervisors keep on costs will eventually appear in Management accounts.

PART E PERFORMANCE CHECKS

1 End Checks

You may review your understanding of the Unit as a whole by completing this group of questions. DON'T GUESS THE ANSWERS - if you're not sure, flick back into the Unit and check before responding.

If you are still unsure then put a question mark against your response before proceeding.

TRUE/FALSE

Respond to each statement by writing TRUE or FALSE in the space provided.

1 Money enables us to put a value on things which can't be compared any other way. _____

2 The main reason companies keep accounts is to keep a record of money they have paid out. _____

3 People to whom a company owes money are its creditors. _____

4 Machinery, vehicles, buildings and computers are current assets. _____

5 The Inland Revenue and shareholders are current liabilities. _____

6 Cost accounting records what the company owns, owes and is owed. _____

7 Management accounting is a means by which a company plans for the future. _____

8 The function of time sheets is to provide information on absenteeism and for the calculation of wages. _____

COMPLETION

Respond by completing each sentence with a suitable word or words.

9 If you have a bank loan which you repay over two years in order to buy a car you are using money as a means of _____ _____.

10 Profit = _____ minus _____.

11 Claims which can be made against a company are _____.

12 A statement of all the assets and liabilities of a business is called a _____ sheet.

13 Assets minus liabilities = _____.

14 Two types of cost we looked at which a supervisor can influence are _____ costs and _____ costs.

15 Time spent cleaning down machinery is an _____ labour cost.

16 Time spent operating machinery is a _____ labour cost.

MULTIPLE CHOICE

Respond to each question by putting a tick against the ONE answer which is most correct.

17 Which of the following is not a function of money?

a medium of exchange

b store of wealth

c method of accounting

d measure of values

18 Which of the following is not a current asset?

a goods which you have supplied to a customer but for which you have not been paid

b goods which you have made but not yet sold

c money which you have just received in payment

d a bill from a supplier which you are about to pay

19 Which of the following is not a material cost?

a wages of warehousemen who deal with all goods in and out

b purchase price of raw materials

c cost of storing and packaging your goods

d interest on a bank loan to buy raw materials

20 Which of the following is not a direct materials cost? (You manufacture greetings cards)

a gummed envelopes which you buy in to contain your greetings cards

b stationery for use by the company

c inks for printing cards

d paper on which to print greetings cards

21 You make a consignment of dresses which you sell for £4,500. The direct materials cost is £1750 and the indirect costs associated with purchasing and storing the material £200.

The clothing took ten operators eight hours each to produce and you pay them £3 an hour. You also have indirect labour costs resulting from setting up the machines in a certain way which total £250.

What is your profit on this consignment?

a £2060

b £2270

c £2020

d £2070

22 Look at this balance sheet and answer the question which follows:

ASSETS	£	£	LIABILITIES	
Fixed Assets				
			Capital	?
Premises	35,000			
Plant	12,000			
Vehicle	4,000	51,000		
Current Assets			**Current Liabilities**	
Goods for sale	2,400			
Debtors	1,500		Creditors	1,600
Bank	450	3,350		
		55,350		55,350

What is the correct figure for CAPITAL in this balance sheet?

a £55,350

b £56,450

c £2,850

d £53,750

23 Which do you use to draw up future plans using management accounting methods?

a balance sheets

b assets and liabilities

c budgets

d time sheets

24 Which of the following will <u>not</u> be used to provide information for cost accounts?

a time sheets

b pay slips

c clock cards

d materials requisitions

END CHECK - Checkout

Audio tape Side 2 Time guide 30 mins

The answers and explanations for these End Checks are on Side 2 of our Audio Tape. Have your responses with you as you play this tape. As you listen you can check out how well you have done and make notes as you proceed.

2 Tutor Check

Time guide 60 mins

In this assignment we'll look at the costs involved in keeping and purchasing stocks. Let's assume that you are in charge of the stores. Your organisation has just taken on a young unexperienced trainee storekeeper who is going to need some help from you to learn the job.

1 Briefly describe how you could explain the following things:

a Holding costs

b Stock out costs

c Maximum stock level

d Minimum stock level

One sentence under each of these headings will be sufficient.

2 Your trainee is very keen to learn. One day you ask him to make out a purchase requisition, or a purchase request, for an item not normally held in stores. He would like to know what will happen once the buyer receives the requisition. Provide a brief outline of the likely activities which will follow from his making a purchase request.

Send to tutor

Now get your answers to your study tutor either by post or handing it over personally. You will receive your tutor's assessment and comment back through the post as soon as can be managed.

3 Work- based Project

Time guide 60 mins

1 Make a list of the names and job title of all those people, including yourself and your manager, who regularly come into your work place. Note down whether they are a Direct or an Indirect labour cost. Where this is not obvious then write a one sentence reason for your decision.

2 Make out a similar list for your commonly used materials.

3 Select TWO items of stock from the list of materials you have just compiled

a) Now note how much 'stock' exists in the hands of your workteam.

b) Give your best estimate of the cost of this stock.

c) Now check in your own mind whether the cost of this stock can be justified or not. Note down your thoughts and what you intend to do about this stock.

Send to tutor

Now get your answers to your study tutor either by post of handing it over personally. You will receive your tutor's assessment and comment back through the post as soon as can be managed.

PART E UNIT REVIEW

1 Return to Objectives

Having completed your work on this unit let's review how you feel about each of our five opening objectives. I'll repeat them here and add comment.

You will be better able to:

* **UNDERSTAND HOW MONEY CAN MEASURE PERFORMANCE AT WORK**

We were already aware that Accountants seem to talk of everything as if it were money. So even time is money. Now that you can see the good reasons for putting a money value on all things and activities in your place of work then you have achieved this objective.

You will be better able to:

* **APPRECIATE THE NEED FOR ACCOUNTING PROCEDURES**

We looked at a number of things that go on in any work organisation in order to keep track of their money - we use the term money here as an accountant would use it. Because the handling of money can get very complicated you can easily see the need for clear records of all assets and liabilities and of all activities. Knowing this means you have achieved this objective.

You will be better able to:

* **DESCRIBE THREE FORMS OF ACCOUNTING IN BUSINESS**

By carefuly working through the unit, particularly by your work on the balance sheet, then you have begun to practice accountary procedures. So you will have met this objective.

Finally you will be better able to:

* **RECORD ACCOUNTING INFORMATION AT YOUR WORKPLACE**

We have seen the need for having proper accounting recrods in any organisation. Now that you know what is involved and are able to recognise the information you should and are able to give, then you have achieved this objective.

I hope that this work you have done was enjoyable and useful enough to encourage you to continue in your studies.

2 Extensions

I recommend that you take up as many of these extensions as you can. They will further increase your understanding and interest. You will also be able to check out a number of the ideas that I mention in the Unit. The extra time and effort will prove very worthwhile.

EXTENSION 1

Book: Accounting for Non-Accountants

Author: Graham Mott

Publisher: Pan

This book looks at the kinds of accounts companies have to keep and the information they provide in much more detail than we can here.

EXTENSION 2

Book: Supervisory Studies

Author: P W Betts

Publisher: MacDonald and Evans

Costing systems are examined in more detail in chapter XXIX

EXTENSION 3

Book: The Choice Series Unit No 87 Hiring People

Author: Rick Holden

Publisher: Northern Regional Management Centre

EXTENSION 4

Book: The Choice Series Unit No 71 Control Via Budgets

Author: Dennis Bainbridge

Publisher: Northern Regional Management Centre

If you'd like to know more about how firms do their financial planning, you'd find it useful to read this unit.

These extension opportunities can all be taken up via your Support Centre.

They will either have the materials or will arrange that you have access to the materials. However it may be more convenient to check out the materials with your personnel or Training people at work - they may well give you access. There are other good reasons for approaching your own people, for example they will become aware of your interest and you can involve them in your development.

3 References

REFERENCE 1 Book: Business Accounting 1

Author: Frank Wood

Publisher: Longman

See page 1

REFERENCE 2 Book: Business Accounting 2

Author: Frank Wood

Publisher: Longman

See page 817

REFERENCE 3 Book: An Introduction to Business Accounting for Managers

Author: W C F Hartley

Publisher: Pergamon International

(Low price student editions available)

REFERENCE 4 Book: Cost Accountancy

Author: W M Harper

Publisher: MacDonald and Evans (M & E Handbook series)

See pages 9 and 10

They will either have the materials or will arrange that you have access to the materials. However it may be more convenient to check out the materials with your personnel or Training people at work - they may well give you access. There are other good reasons for approaching your own people, for example they will become aware of your interest and you can involve them in your development.

If you do wish to make use of these references then don't think that you must read them right through. Just dip into them for a slightly wider treatment of the topic by the unit.

I should warn that the language and style of the writing is often difficult to cope with. So don't struggle with it too much. Do what I do when in difficulty, put the book back on the shelf and find a better one!

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